

ABSTRACT

**METHOD OF FORMING A DIFFUSION BARRIER
ON A METALLIC SUBSTRATE**

A method of forming a platinum aluminide diffusion barrier on a metallic substrate, eg a titanium alloy aerospace component, comprises applying to the metallic substrate a coating comprising particulate platinum and particulate aluminium in an organic carrier and performing a reaction treatment on the thus applied platinum and aluminium which causes the platinum and the aluminium to form an intermetallic diffusion barrier on the metallic substrate.